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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,486	10/02/2003	Brian S. Vandrak	30816-0041	2485
24115	7590	08/17/2004	EXAMINER	
BUCKINGHAM, DOOLITTLE & BURROUGHS, LLP			WILSON, GREGORY A	
50 S. MAIN STREET			ART UNIT	
AKRON, OH 44308			PAPER NUMBER	
			3749	

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/605,486

Applicant(s)

VANDRAK ET AL.

Examiner

Gregory A. Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-146 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 131-146 is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☒ Claim(s) 13-16, 19-23, 26, 35-37, 42-46, 49, 57, 64-67, 70-74, 77, 83-94, 96-102, 112-122 and 125 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims rejected are 1-12, 17, 18, 24, 25, 27-34, 38-41, 47, 48, 50-56, 58-63, 68, 69, 75, 76, 78-82, 95, 103-111, 123, 124 and 126-130.

DETAILED ACTION***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "14" has been used to designate both side face and back panel. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12, 17, 18, 24, 25, 27-34, 38-41, 47, 48, 50-56, 58-63, 68, 69, 75, 76, 78-82, 95, 103-111, 123, 124, and 126-130 rejected under 35 U.S.C. 103(a) as being

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unpatentable over **Cherryholmes (4,782,814)** in view of **Japan reference**

(JP354116747A). **Cherryholmes** discloses a portable infrared heater (20) and includes a housing (21, 27, 66, 67) having a handle (28) for transporting the heater and legs (26) to elevate the housing, an air inlet (36), a burner assembly (23) mounted in the housing including a gas fuel valve (regulator 29) adapted to communicate with a fuel source (propane tank 24) which is enclosed in the housing and the air inlet and capable of regulating the pressure of the fuel, a radiant surface (22) having a rear face and communicates with a venturi (25) where the air/fuel is inherently mixed, an orifice (31) being located to direct fuel to the venturi, alternatively, Figure 3 shows the radiant surface recessed in the housing and disposed at an angle. **Cherryholmes** furthermore discloses an igniter (ie: piezo) secured to the housing (SEE column 3, lines 13-15), an access means to the fuel source by way of lid/door (unnumbered) which handle (28) is attached. **Cherryholmes** does not particularly disclose an oxygen depletion monitoring means associated with the burner assembly. **(JP354116747A)** teaches an oxygen depletion monitoring device which detects when oxygen is deficient and drops the output through a thermocouple which closes the valve to the burner shutting off the burner. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains to have modified the portable infrared heater of **Cherryholmes** to include the safety feature as taught by **(JP354116747A)** for the purpose of disabling the portable heater when oxygen levels begin to drop and carbon monoxide levels begin to rise. In reference to **claims 10, 12, 27-31, 50-54, 63, 78-82, 111, and 126-130**, **Cherryholmes** in view of Japan reference

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(JP354116747A) does not particularly disclose the size variations and positions of the fuel tank. It would have been an obvious matter of design choice to have modified **Cherryholmes** in view of **(JP354116747A)** to be sized to include multiple propane tanks attached at various locations since such a modification would have involved a mere change in size and mounting locations which is generally recognized as being within the level of ordinary skill in the art. In reference to **claims 4-6 & 106-108**, **Cherryholmes** in view of **(JP354116747A)** does not particularly disclose a recess for hanging up the heater. It would have been an obvious matter of design choice to modify the teachings (substitute) of **Cherryholmes** in view of **(JP354116747A)** to provide an opening for hanging up the heater, since the applicant has not disclosed that having a key-shaped opening solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill. It appears that the claimed feature does not distinguish the invention over similar features in the prior art since, the infrared heater of **Cherryholmes** in view of **(JP354116747A)** will perform the invention as claimed by the applicant with any means of mounting to a wall and alternatively using the handle as a hanging means.

Allowable Subject Matter

Claims 131-146 are allowed.

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Claims 13-16, 19-23, 26, 35-37, 42-46, 49, 57, 64-67, 70-74, 77, 83-94, 96-102, 112-122, and 125 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory A. Wilson whose telephone number is (703) 308-1239. The examiner can normally be reached on 7 am - 4:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on (703)308-1935. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GREGORY WILSON
PRIMARY EXAMINER

Gregory A. Wilson

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August 16, 2004